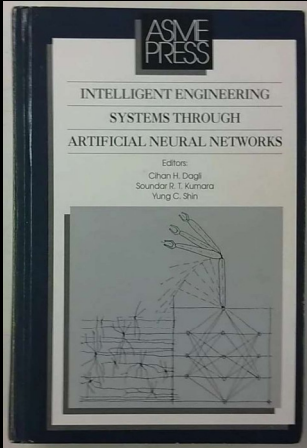

A Comparative Study of the Traveling Salesman Problem



Intelligent Engineering Systems Through Artificial Neural Networks - Proceedings of the Artificial Neural Networks in Engineering (ANNIE '91) conference, held November 10-13, 1991, in St. Louis, Missouri, U.S.A.

Editor: Cihan H. Dagli, Soundar R.T. Kumara, Yung C. Shin



Paper of the book:

Intelligent Engineering Systems Through Artificial Neural Networks
- Proceedings of the Artificial Neural Networks in Engineering (ANNIE '91)
conference, held November 10-13, 1991, in St. Louis, Missouri, U.S.A.

Online Version

Internet Archive

<https://archive.org/details/intelligentengin0000arti/mode>

Abstract

The Traveling Salesman Problem (TSP) is frequently used in the literature to test the performance of neural networks and genetic algorithms. Such techniques appear to share many common characteristics. In this paper, we present a comparative study of a set of selected current algorithms on the TSP. The algorithms studied include a simulated annealing algorithm, a Hopfield network, a mean field algorithm, and a genetic algorithm.

+

[C] A **comparative study** of the **traveling salesman problem**

TM Kwon, Y Lu - Intelligent Engineering Systems Through ..., 1991 - ASME Press New York

☆ Cited by 6 Related articles ⇔

Cited by Books and Papers (7)

Setup planning using Hopfield net and simulated annealing

J Chen, YF Zhang, AYC Nee - ... *Journal of Production Research*, 1998 - Taylor & Francis

... The **travelling salesman problem** is one of the classic combinatorial **problems** and can be described as follows (**Kwon and Lu 1991**). A set of N cities A,B,C,..., have pair-wise distances ...

☆ Save  Cite Cited by 74 Related articles All 5 versions

An expert neural network system for dynamic job shop scheduling

SK Sim, KT Yeo, WH Lee - ... *OF PRODUCTION RESEARCH*, 1994 - Taylor & Francis

... **Kwon** and Lu (1991) presented a **comparative study** of TSP ... *Research Society*, 29 (3), 229-233. WILSON, GV, and PAWLEY, GS, 1988, On the stability of the **travelling salesman problem** ...

☆ Save  Cite Cited by 99 Related articles All 4 versions

Scheduling

JY Cheung - *Artificial neural networks for intelligent manufacturing*, 1994 - Springer

... net for scheduling can be illustrated using the **traveling salesman problem** (TSP). Given the ... For the TSP, **Kwon** and Lu (1991) have reported a **comparative study** of four techniques ...

☆ Save  Cite Cited by 20 Related articles All 2 versions

A Hybrid algorithm to solve the traveling-salesman problem using operations research heuristics and artificial neural networks

SE Toure - 1996 - etd.ohiolink.edu

... A **comparative study** with dispatching rules and branch and bound techniques revealed the ... **Kwon** and Lu [1991] made a **comparative study** of the four first networks and genetic ...

☆ Save  Cite Related articles All 2 versions 

Potential of artificial neural networks for resource scheduling

N Kartam, T Tongthong - *AI EDAM*, 1997 - cambridge.org

... Table 1 shows a **comparison** of five commercial ... the **Traveling Salesman Problem** (TSP) (TSP is a well-known optimization **problem** where there is a number of cities that a **salesman** has ...

☆ Save  Cite Cited by 8 Related articles All 6 versions

Global torch path generation for 2-D laser cutting process using simulated annealing

G Han, S Na - *Intelligent Automation & Soft Computing*, 1998 - Taylor & Francis.

cutting of sheet metals. This paper addresses the problem of a torch path generation for the 20 laser cutting of... Kwon and Lu[17] showed that SA performs very well in solving the TSP in

☆ Save  Cite Cited by 13 Related articles All 2 versions 

Probabilistic computation in stochastic pulse neuromime networks

RD Hangartner - 1994 - ir.library.oregonstate.edu

Can biological minds out-think machines, or do the (sometimes) superior capabilities of biological minds just reflect the greater realizable density of conventional computational ...

☆ Save  Cite Cited by 2 Related articles All 2 versions 

Create alert